

ABSTRACT

Disclosed is a method of manufacturing the non-volatile memory device. The method comprises the step of forming a floating gate on a semiconductor substrate, implementing nitrification treatment for the top surface of the floating gate, forming a silicon nitride film on the floating gate experienced by the nitrification treatment, forming a metallic oxide film on the silicon nitride film, implementing annealing in order to supplement oxygen for the metallic oxide film, and forming a control gate on the metallic oxide film. As the leakage current due to irregularity of the interface is prevented, electrical characteristics could be improved. Furthermore, the process equipment used in the existing DRAM (dynamic random access memory) capacitor could be utilized intact.